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Formulation and Application of Ointment Containing Various Plants for Treatment of Inflammation and Bone Fracture

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Abstract: This study aims to develop an herbal ointment utilizing various plant extracts renowned for their anti-inflammatory and bone-strengthening properties, with the goal of offering an effective and natural alternative for the treatment of inflammation and bone fractures. The formulation process involves the extraction of active compounds from selected medicinal plants, including but not limited to turmeric, ginger, Boswellia serrata, and comfrey. These plants have been traditionally used for their potent anti-inflammatory effects and ability to promote bone healing. The ointment formulation is optimized to ensure the stability and bioavailability of active compounds, utilizing appropriate excipients and techniques. The resulting ointment is expected to possess anti-inflammatory properties that alleviate pain and swelling associated with inflammation, while also facilitating the repair and regeneration of bone tissue to expedite the healing process of fractures. The efficacy of the herbal ointment will be evaluated through in vitro and in vivo studies, assessing parameters such as anti-inflammatory activity, bone mineral density, and histological analysis of bone tissue. Furthermore, clinical trials will be conducted to assess its safety and effectiveness in human subjects. The successful development and application of this herbal ointment have the potential to offer a natural, affordable, and accessible treatment option for individuals suffering from inflammation and bone fractures, thereby contributing to improved healthcare outcomes and quality of life.

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